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Luminescent Microthermometry of Laser Heating using Semiconductor Nanoplatelets*

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The effect of temperature on luminescence of semiconductor nanocrystals is used for monitoring local heating of specimens studied at laser scanning microscope. The spectral position of luminescence maximum is a convenient parameter to be followed; its thermal shift remains nearly linear within a broad temperature range. Nanoplatelets are found advantageous nanosized temperature sensors as compared to quantum dots due to narrower luminescence spectrum.

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